

## FORD MOTOR COMPANY

EXECUTIVE ORDER A-010-1139 New Engines for Diesel or Incomplete Medium-Duty Vehicles

Pursuant to the authority vested in the Air Resources Board by Health and Safety Code (HSC) Division 26, Part 5, Chapter 2; and pursuant to the authority vested in the undersigned by HSC Sections 39515 and 39516 and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the engine and emission control systems produced by the manufacturer are certified as described below for use in diesel or incomplete medium-duty vehicles with a manufacturer's gross vehicle weight rating (GVWR) from 8,501 to 14,000 pounds. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	ENGINE SIZE (liter)	FUEL TYPE (CNG/LNG=compressed/liquefied natural gas; LPG=liquefied petroleum gas)	STANDARDS & TEST PROCEDURE	EMISSION STANDARD CATEGORY	ON-BOARD DIAGNOSTIC COMPLIANCE	
2003	3FMXH05.4TH5	5.4	Gasoline	Otto	ULEV	Full	
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS		ENGINE MODELS / CODES (rated power in horsepower, hp)					
TWC, 2HO2S, HO2S, SFI		3E414R0B05, 3E414U0B05, 3E414X0505 (255 hp) 3F714N0B05, 3F714F0B05, 3F714G0B05 (260 hp)					
ori≡sedueni	ree-way/oxidizing catalyst tialMFI DDI/IDI=direct /in AIR=pulsed AIR SPL=smol	diract diacal in	varm-up cat. O2S=oxygen sensor HO2S=heated lection TC/SC=turbo/super charger CAC=charg ECM/PCM=engine /powertrain control module	O2S TBI=throttle bod ge air cooler EGR=e EM=engine modificati	ly fuel injection MFI=n xhaust gas recirculatio on 2 (prefix)=parallel	nulti port fuel injection  AIR=secondary ai  (2) (suffix)=in serie	

The following are the exhaust emission standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) in grams per brake horsepower-hour (g/bhp-hr) for this engine family for non-methane hydrocarbon (NMHC) plus oxides of nitrogen (NOx) (NMHC+NOx), NMHC, carbon monoxide (CO) [except that "diesel" CO certification compliance may have been demonstrated pursuant to Code of Federal Regulations, Title 40, Section 86.091-23(c)(2)(i) in lieu of testing], particulate matter (PM), and formaldehyde (HCHO) (Title 13, California Code of Regulations, (13 CCR) Section 1956.8): (For flexible- and dual-fueled engines, the CERT values in brackets [] are those when tested on conventional test fuel.)

* = not applicable [g/bhp-hr]	NMHC+NOx	NMHC	co	PM	HOUG
(DIRECT) STANDARD	2.5	*	14.4	- FIVE	НСНО
CORPORATE AVERAGE STANDARD	*	*	14,4		0.050
FAMILY EMISSION LIMIT (FEL)	*	*			*
CERTIFICATION LEVEL	1,1	*	2.2		*
*** *** *** *** *** *** *** *** *** **			2.2	-	0.005

**BE IT FURTHER RESOLVED:** That certification to the FEL(s) listed above, as applicable, is subject to the following terms, limitations and conditions. The FEL(s) is the emission level declared by the manufacturer and serves in lieu of an emission standard for certification purposes in any averaging, banking, or trading (ABT) programs. It will be used for determining compliance of any engine in this family and compliance with such ABT programs.

BE IT FURTHER RESOLVED: That the listed engine models have been certified to the optional emission standards and test procedures in 13 CCR Section 1956.8 applicable to diesel or incomplete medium-duty vehicles with a GVWR from 8,501 to 14,000 pounds and, therefore, shall be subject to 13 CCR Section 2139(c) (in-use testing of engines certified for use in diesel or incomplete medium-duty vehicles with a 8,501-14,000 pound GVWR).

**BE IT FURTHER RESOLVED:** That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with 13 CCR Sections 1965 (emission control labels), 1968.1 (on-board diagnostic, full or partial compliance), and 2035 et seq. (emission control warranty).

Engines certified under this Executive Order shall conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this Executive Order.

Executed at El Monte, California on this \_\_\_\_\_ day of July 2002.

Allen Lyons, Chief

Mobile Source Operations Division

## 2003 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET HEAVY DUTY OTTO-CYCLE ENGINES

Manufacturer: Ford Motor Company	<u>Y</u>	Engine Family: <u>3FMXH05</u>	.4TH5				
Displacement: <u>5.4L</u> Liter <u>32</u>	6 Cubic Inches						
Codes in Eng Family: CA X_ 49S 50S_X_							
Fuel Type(s): Dedicated X Flex Fuel Dual-Fuel Bi-Fuel Gasoline X C  LNG LPG M85 M100 Other (specify)							
			ation <u>V8</u>				
Maximum Rated Power: _255_rii	Rated Power: _255_HP @ _4500_RPM_E-Series						
Engine Model (Engine Code)	Ign. System or PCM Part No. -12A650-	Fuel System Injector Part No. -9F593-	Catalyst Part No5E212-				
E-Series E-350 Strip Chassis, E350 Cutaway (379 3E414R0B05		F0TE-DB	1C2C-CB				
E-350 Strip Chassis, E350 Cutaway (55) 3E414U0B05	gal) <sup>2</sup> 3C2A - EB	··	u				
E-350 Cutaway Extended (37gal) <sup>1</sup> 3E414X0505	3C2A - FB		# · · · · · · · · · · · · · · · · · · ·				
<ul> <li>Evap Family 3FMXE0155BAH</li> <li>Evap Family 3FMXE0310BAH</li> </ul>							
Comments:							

17.02 - 1a

Engine Family: 3FMXH05.4TH5 Issued: May 30, 2003

Revised:

## 2003 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET **HEAVY DUTY OTTO-CYCLE ENGINES**

	Manufacturer: Ford Motor Company	<u>_</u>	ngine Family: <u>3FMXH05.</u>	<u>4TH5</u>				
	Displacement: <u>5.4L</u> Liter <u>326</u>	Cubic Inches						
	All Eng Codes in Eng Family: CA_X	49S 50S_X_						
	Fuel Type(s): DedicatedX Flex F	Fuel Dual-Fuel	Bi-Fuel Gasoline_X	CNG				
	LNG LPG M85	M100 Other	(specify)					
	Maximum Rated Power: 260 HP @	_4500_RPM F-Ser	ies Engine Configurati	on <u>V8</u>				
	Exhaust Control System and Special Features TWC, 2HO2S, HO2S, SFI (Use abbreviations per SAE J1930 SEP91)							
•	Engine Model (Engine Code)	Ign. System or PCM Part No. -12A650-	Fuel System Injector Part No. -9F593-	Catalyst Part No5E212-				
	F-Series F-350 4x2, 4x4, Chassis Cab, Narrow Fram 3F714N0B05	ne (40gal, or optional 3C3A - DB	l 18.4gal) <sup>1</sup> F0TE-DB	2C2C-HC				
	F-250/350 4x2, 4x4, Long Bed Delete (37.4 3F714F0B05	gal) <sup>2</sup> 3C3A - AB		n .				
	F-250/350 4x2, 4x4, Short Bed Delete (29.6 3F714G0B05	3C3A - BB	u u	н .				
	<sup>1</sup> Evap Family 3FMXE0155BAH							
	<sup>2</sup> Evap Family 3FMXE0155BBH							
	Comments:							

Engine Family: 3FMXH05.4TH5 Issued: May 30, 2002

Revised:

17.02 - 1b